A G E N D A

Manure Management Task Force

9:30 a.m. to 3:30 p.m.
January 19, 2006

Board Room
2811 Agriculture Drive, Madison
Department of Agriculture, Trade, and Consumer Protection

9:30 A. M.

1. Call to Order

2. Roll Call

9:40 A.M.

3. Born and Rude, Task Force Co-Chairs

   - Approve notes from November meeting

10:00 A.M.

4. *Group Discussion:* Review and analyze comments from Listening Sessions

10:30 A. M.

5. *Co-Chairs Introduction*: Overview of final work product

10:45 A. M.

6. *Group Discussion*: Review and adoption of findings and recommendations

11:45 A. M. to 12:30 P.M.

Lunch

12:30 P.M.

7. *Group Discussion(cont.)*: Review and adoption of findings and recommendations

2:00 P.M.

8. *Group Discussion*: Future actions: Engagement and Accountability

3:00 P.M.

9. Co-Chairs: Meeting Wrap Up

- Review steps for final sign-off

10. Task Force Member Check Out

3:30 P.M.

11. Adjournment

DRAFT

Manure Task Force Meeting
November 21, 2005, DATCP Board Room, Madison

Task Force members in attendance:

Brian Rude, Co-Chair	Dairyland Power; DATCP Board
Steve Born, Co-Chair	Retired UW Professor
Monte Wick	Farmers Coop. Supply & Shipping
Andrew Hanson	Midwest Environmental Advocates
Jay Richardson	Prof. Dairy Producers of WI
Richard Gorder	WI Farm Bureau Federation Board
Rebecca Power	River Alliance of WI
Dan Fischer	Manitowoc Co. Exec.
Lisa Conley	WI Assoc. of Lakes
Wally Lueder	WI Farmers Union
Dana Cook	Manure Hauler, Sauk Co.
Kevin Connors	Dane Co. Dept. of Land & Water Resources
Robert Selk	Trout Unlimited
Kevin Erb	UW-Extension
Dan Brick	Dairy Business Assoc.

Task Force members absent

Ken Blomberg	Rural Water Assoc.

Also in attendance: additional agency staff & others

Upcoming meetings

- **Thursday, Dec 15th**. Public listening sessions will be held at three locations to gather input on the preliminary recommendations. Staff will present a brief PowerPoint overview of the preliminary recommendations, followed by a question and answer period and comments from the public. Task Force members can attend the location of their choice. A press release with location details was issued on December 1, 2005.
  - Eau Claire: 11:00 AM-2:00 PM (plan to attend: Rude, Stevenson, Wick, others)
  - Manitowoc: 4:00-7:00 PM (plan to attend: Castelnuovo, Hanson, Brick, Fischer)
  - Madison: 11:00 AM-2:00 PM **and** 4:00-7:00 PM (plan to attend: Born, VandenBrook, Leuder, Power)

  Thursday, January 19th, DATCP Boardroom, Madison. Members will consider public input, modify and finalize the Task Force's recommendations.
- **DATCP Board Meeting**. Presented for DATCP board meeting in February or March. (members should be notified of the date)

Remarks from DATCP Secretary Nilsestuen

Secretary Nilsestuen praised the Task Force for their impressive range of discussion, their focus on what currently is and is not working, and their acknowledgement of budget issues. He acknowledged the amount of effort expended over the years to maintain the environment and clean water, but reinforced that there is more that needs to be done. He hopes that this effort will result in practical approaches that people can embrace, and that this process will help to obtain the ownership that is needed for implementing solutions.

Logistics

- Roll call
- October 20 meeting minutes approved.
- See handouts provided by staff in response to questions raised from the September meeting.

Presentation: Lake Impacts—Conley & Buzz Sorge

See handouts: Green Lake & Delavan Lake, Powerpoint handout

- Lakes respond very differently from streams to inputs of manure, because they do not flush. Discussed impacts to Delavan Lake, Green Lake, Lake Mendota.
- Discussed economic impacts from reduction of lake quality. Money spent for cleanup is money well spent that comes back to our economy. If more expensive properties are paying more taxes, it results in a tax shift that reduces the burden on other surrounding residents. The cost of implementing P reduction strategies is much less than the cost of cleaning up current phosphorus inputs.
- Most lakes in WI are phosphorus limited (phosphorus is the nutrient that determines the amount of plant growth; as more phosphorus is added, more algae will grow). Doesn't require much phosphorus to stimulate algal growth. Recognizes that nearshore development also impacts lakes. But agriculture delivers about 1 lb/acre/yr. (see chart of P loading).
- Discussed case studies:

- Lake Mendota: We're banking a about 575 MT per year over what it takes to produce the crop. Using SWAT model to redistribute a measured load back to the landscape & then determine how changing practices would change the loading to the watershed.
- Coon Fork Lake: Looked at reducing P in feed while allowing daily haul; resulted in a 29% reduction in Coon Fork Lake. If we both reduce P in feed & schedule manure applications, we get a 32% reduction.
- Squaw Lake: used paleolimnology to take a sediment core to determine historical water quality. Determined up until 1940 it had relatively good water quality; started increasing with agricultural supplements. Had some manure runoff events in late 80s that dramatically increased the load, and even though the farmers have implemented all BMPs, the lake doesn't respond quickly because it's internally drained. We're now bringing less P in than is going out—we have a negative P balance now through BMPs. Soil test P numbers have been increasing across the state, but showed examples of operations bringing those soil test P levels down.

Discussion:

- Did we tease out AU from wildlife versus domestic? Geese will pollute; not an issue on every lake but it does come into play. Wasn't education the major key in getting the BMPs in place? It was a priority watershed project (Squaw Lake) where cost sharing was provided, and education was of course a big part as well.
- Sanitary Districts have a different charge than Lake Management Districts, which have a power of taxation, max 2.5 million. Can create funding sources to help fund practices.
- On Coon Fork Lake and Tainter Lake, both have gage loads to measure P going into the lake; determining where the P came from is modeled.
- Woodlands load at about 10% of agricultural lands (however, woodlands concentrations may be higher than ag lands).

Revisited Charge: Provide advice to Secretaries of DNR and DATCP on ways to protect water quality from manure runoff, while protecting agricultural interests. Co-Chairs also thanked the agency staff who have worked to support the Task Force.

Review of Draft Recommendations and Summary (Co-Chair Guidance)

See handouts: *Co-Chair guidance on proposed major recommendations manure management task force November 21, 2005*; *DATCP and DNR DRAFT Proposed Findings and Recommendations, Manure Management Task Force, November 11, 2005*.

- To focus on the major recommendations and topics, the Co-Chairs presented a two-page summary of the longer recommendation document that was distributed with the meeting materials. Clarified that both the long and short versions of the recommendations would go to Secretaries. Shorter document is just a summary of the longer document, to present as an easier version to read. The final report would have three parts: the summary, the longer report, and appendices.
- Purpose of this meeting is to refine the draft recommendation documents so that they can be presented to the public at the December public informational sessions.
- Task Force members should send any major recommendations or edits on the longer draft directly to the staff to edit, but try not to get lost in the small scale things. Co-Chairs hope to have general consensus on most items, but are open to having a minority report for any items that the Task Force does not reach consensus on.
- The group recognized that areas of disagreement will remain and be noted as such, but agreed to see how far it could get in relative agreement. Discussed the concern that items would be inserted without awareness of all group members. If document is read by all Task Force members, there should be no surprises.
- Edits to the Recommendations from Task Force members must be submitted to Castelnuovo by Wed. Nov. 23. Draft document should be available by Dec. 1 on the web.

Items not found in the documents that Task Force members felt should be added

- The Task Force previously touched on, but did not resolve, the ability of local governments to act and the current ambiguity on their level of authority. Brown County intends to revisit this issue after Jan 1, 2006, and several ordinances are anticipated. Need to ensure that local and state governments cooperate to determine how much authority is local governments have in a legal context to deal with manure runoff issues, and should come up with some clear determinations.
- Make sure funding is addressed when discussing implementation.
- The value of local small-scale watershed management plans is very high locally, and is missing from our discussion. Should be added to the sections that discus "targeting risk"—explicitly state that the state should empower and fund watershed planning, similar to how lake districts and sanitary districts function.
- Manure spreading on frozen and snow covered ground was a major issue that spurred the creation of this task force, and needs to be explicitly recognized in the recommendations. It is crucial that at least a general recommendation applicable to all operations (not only permitted ones) be included about the value of restricting spreading on frozen/snow covered ground. Under General Considerations, we could create a distinct list of the most important

types of practices needed to address this problem in bullet points: reducing spreading on frozen and snow-covered ground, reducing phosphorus in feed, etc., and then go into what methods can be used to achieve those practices (incentives, regulations, etc). (general agreement) If we don't explicitly state these most important practices, there is some lack of substance.

- The practicality of these recommendations to the day-to-day operations to farmers is missing from the document. Will these recommendations materially help make the needed changes happen? Some of the specifics of implementation will need to yet be worked out by the agencies and stakeholders.
- Note the importance of balancing phosphorus to ensure that we are not continually overloading watersheds with phosphorus but are instead bringing the phosphorus balance down. (will note)

1. Research.

- The Task Force questioned the need for creation of a new umbrella group, and instead recommended that a unit of the Wisconsin Agricultural Stewardship Initiative (WASI) coordinate existing research groups. The Task Force did recognize the need for better coordination and dissemination of research. Try reworking the language to 'ensuring a mechanism is in place' rather than 'establishing' a new group.
- This list addresses acute events but not so much the chronic loading; need to focus more on chronic as well. (Will make explicit). For instance, there is work being done on recovering phosphorus from manure to sell—an opportunity to reduce the base load of phosphorus in the watershed. (Chesapeake Bay, Holland). Could also add info on longer-term manure practices. However, the group recognized that because of high levels of phosphorus in the sediments, results of phosphorus reduction programs require a long time to become evident.
- The section on research is quite lengthy. Add adaptive management language here to streamline some of the bullets in Research or in General Considerations. Also use adaptive management as a guiding principle for how the umbrella group would be run.
- Data collection has been lacking on DNR's part; don't have the documentation needed to implement regulations and practices. Some group members felt that the Task Force should prioritize the research bullet points. However, the Co-Chairs felt that setting priorities for research is a major enterprise, and it would be very difficult for this group to set these priorities.
- Note to group: take the whole mix of recommendations, not feeling that one category outweighs the other categories.
- Draft doesn't feel very concrete; whatever can be done to make it more concrete should be done (e.g. specifically addressing research coordination, reducing phosphorus, addressing chronic impacts, causes of runoff events, etc.).
- Eliminate 4th bullet (is covered in other bullets).

2. I&E & Alternative Systems and Management.

- Group agreed to the idea of developing a manure spreading advisory system, though discussed the practicality of it at a statewide level. Suggested creating guidelines for the advisory system at either the 24 or 48 hour level. Could be set up on a regional basis, similar to national weather service flood warnings, or done by zip code. Could be set up as an educational tool to help assess degrees of risk and find out the risk index for that day.
- Farm economics is important in helping educate people.
- Group agreed we need explicit language asking for funding for adequate training programs for nutrient management. The Task Force agreed that the lack of resources is not so much on the university level but on the county side for implementation. County staff have to identify whether training is a priority and promote it. The university has been involved in setting up training for farmers & consultants, has been ongoing for many years. However, we do not have the capacity to do that for everyone by 2008 (per Erb, UW typically reaches 17 operators per county per year). The system is very effective for those who participate but requires dedicated staff & finances. Erb noted that the Multi-Agency Land & Water Education Grant (MALWEG) program which funds this training is federal and is diminishing each year.
- The coordinating body could also work on I & E aspects. The UWEX Nutrient & Pest Management (NPM) program coordinates nutrient management outreach right now, so just need to find out what resources are needed to get that outreach done. Suggested reworking the first bullet of recommendations to reflect current NPM I&E efforts.
- I&E is different from marketing—Powers will look at I&E section to see if the two can be better clarified.
- Encourage the farm groups to sponsor the I & E aspects—would build local ownership. (agreed)
- Farm economics should be a focus of I&E; more widespread awareness of those models.

3. Implementation of nutrient management plans.

- Seemed to be some agreement to specify recommending P-based NMPs with water quality protection components.
- There was some disagreement on what constitutes an effective nutrient management plan, and whether NRCS 590 does enough or not. For acute issues NRCS 590 may not be sufficient (loading rates are too high, setbacks aren't

large enough in 590), though it addresses chronic impacts better than acute. The group did recognize that if 590 were implemented today it'd have a profound impact on water quality even though it won't address all acute events.

- NRCS 590 standard is in DATCP's rule, and contains winter setbacks, hydraulic loading limits (not as stringent as NR 243), spreading restrictions, and a provision that allows locally identified vulnerable areas to have more restrictions. It is fairly broad on the local level; counties can identify local areas that are susceptible, and implement field-by-field restrictions. 590 is not a regulation, it's a standard—it doesn't mandate or restrict any behaviors. There's no requirement that local areas identify their vulnerable areas.
- Regarding spreading time: have to be careful that you don't have everyone hauling in spring & summer, that we don't cause millions of dollars worth of damage to the roads. This would impact the Town Associations--some towns won't let equipment on the roads unless roads are frozen. Should indicate that there are some constraints on implementation—other issues that will come into play.
- Implementation of funding mechanisms: clarify that $7-14 million ANNUALLY is needed.
    - Task force may be better off recognizing that NMPs are a top priority but not suggesting specific ways to fund them or it will become too controversial. Or could list several possibilities for funding (see discussion below for some options).
    - See handout on surcharges. The challenges on a surcharge are not in calculating how much to charge, but who to charge it to, and whether the surcharge should be on both in & out of state milk—may cause impacts on competition between states. If it applies at retail level it would apply to both in and out of state milk, and may therefore be less of a problem. Who would collect the charge? A lot of money can be generated through cwt rather than per gallon. This may be out of range of this Task Force, but it does demonstrate that economics will drive this process—has to be cost effective to the producers.
    - Could apply a gas tax to ag (not currently in place). Give tax break only to production farm acres—(see handout: Connecting Conservation with Tax Incentives—provided by Conley). Discussed charging a variable tax depending on how land is being used. Taxes are much higher on conservation lands—suggested that if a farm had a whole farm plan, a whole farm tax break could be implemented. Remove the disincentive that is currently in place. It's a shift of taxes from one segment to another. Use Value Assessment was proposed but has already been discussed by the legislature and doesn't seem viable.
    - Discussed a fee on septic systems, and additional surcharge on sewer bills, making fees higher for new dwellings' septic systems.
- Targeting where funds go—point for after the meeting. We should consider exploring a mechanism for having monetary compensation for NMPs be in accord with the actual costs of creating/implementing those NMPs. (i.e. shouldn't subsidize a net gain)
- The market forces that are in place will also drive increasing implementation of NMPs eventually.

<u>Other Planning</u>

- Local watershed planning. Powers recommended empowering watershed management planning—power to tax, to make management decisions for their lake—providing some sort of designated authority and funding mechanism. Having this mechanism is essential in getting local people together to discuss these issues, and would also provide a way to implement the nonpoint program. Suggested adding to last bullet on page 5, "and other locally led endeavors", "assuring inputs from local watershed groups and planning incentives associated with it", or tie it to impaired waters or TMDLs. There are examples in WI and other states where it has been done. Could explore those types of systems. However, the Task Force concluded that amending watershed associations' authority is beyond the scope of the Task Force charge.

4. Emergency management.

- Scope of Emergency Management Plans (EMP): There are 10 templates currently existing for comprehensive emergency management plans to cover different areas. Or, the plan can be much smaller and more generalized.
- There is also an insurance discount associated with having an emergency management plan.
- Task Force members all strongly encourage EMPs. However, the Task Force was split in terms of how that should be accomplished—voluntary or regulatory. All felt strongly that EMPs do need to be achieved; whichever method is chosen should be revisited in the future to assess the success of method chosen. Co-Chairs clarified that Task Force members are encouraged to write a minority report if they disagree with parts of the recommendations.
    - Discussed whether we should mandate EMPs or encourage them (through limited enforcement agreements, etc.). We have a list of recommendations that do not have any force through codes. Some members suggested making the use of EMPs mandatory for medium & large operations, with incentives for all operations. Currently EMPs are mandated for NR 243 permitted operations and covered by livestock siting regulations.

- Both education and the law go hand in hand; don't close the door on mandating EMPs. The burden is minimal, but we have an ideological idea that we need to allow farmers to be irresponsible if they want to be. Others argued that we should use I&E before regulations.
- The problem is that we don't know what is in the plans and who the actors are. Need to 1) determine what is to be included in the EMPs; 2) determine roles and responsibilities; 3) use the above these to develop a standard EMP identifying roles and responsibilities; 4) promote those standardized EMPs.

- General consensus to include encouragement of counties to create their own EMPs in Task Force recommendations. Counties should also put emergency management plans in place. The templates are there but there's been no outreach on it. Add language: "Encourage farmers and local governments, supported by educational efforts and incentive programs." There's a high value in education of both farmers and county officials—need to increase the dialogues there.
- The risk of not having plans is relatively high compared to the level of effort and cost required to make these plans. Recognize that EMPs are after the fact, not a risk-based proactive assessment.

5. Regulations.

Recognized that several related processes are happening right now in conjunction to the Task Force: NR 243, ATCP 50 and 51, Livestock Siting, Buffer Initiative. Regulations bring with them other things like enforcement, monitoring, etc.

- Licensing manure applicators:
  - In previous discussions, it seemed there might be some consensus on regulating licensing for manure haulers. However, it was pointed out that less than 1/3 of manure is spread by commercial manure haulers and 2/3 is spread by operators; members raised the question of whether money & efforts should be targeted toward operators instead. The possibility was also raised of including mandatory larger operations in commercial hauler training, as well as voluntary training for smaller operations (for small operations, some do not see a need for this type of training). Erb stated that most states license farmers, not commercial manure applicators (see handout on state licensing programs). In the handout with statistics on recent runoff events, in only 7 cases was the manure spread by contract haulers, in 27 cases it was spread by the operator. Need to assess where efforts will be best targeted to protect the most water quality. If operators are the focal point, should the focus be education/training, or should there be a regulatory component? There is concern by commercial haulers that operators should be held to same standard as commercial. Requiring training of everyone promotes a level playing field, and that is desirable from the standpoint of many applicators.
  - What is needed is to have everyone educated & motivated to do the right thing? Motivation could be economic, societal, or regulatory.
  - Discussed whether the pesticide applicator program could provide any guidance into how a licensing program for manure applicators could be run. The pesticide booklet and test are updated every 5 years. Guidance from EPA is given to each state to enact. All people that apply certain high-risk pesticides must go through that training. Applicators for hire (3+ fields or 500+ acres a year) must get higher level certification (commercial license). The idea of adding nutrients training to the pesticide training has previously been discussed and rejected by the University. Pesticide certification is different from nutrient management, since most of manure management is unique to each farmer.
  - This could go hand in hand with the emergency management component. Much of the manure hauling training would be an overlap with the EMPs, and could be one part of the emergency management strategies. Couple writing the EMP with manure hauling training. Should one be licensed, and the other be encouraged? Could all be part of the environmental management system approach.
  - Certification vs licensing: There is not a clear distinction between licensing and certification in some states; sometimes the terms are used interchangeably. But in WI, certification is a higher level of voluntary training; licensing is something that is required to operate. Licensing might encompass more (for instance, financial requirements).
  - Could DATCP have the current Professional Nutrient Applicators Association of Wisconsin (PNAAW) group implement this program rather than taking it on as an agency? PNAAW can also train people who are not members. The PNAAW training is a 3-tier program. Could require only the first tier of the 3 tier program, and then applicators could go beyond that to tier 2 or 3 if they want to. We should note the current program template in the recommendations.
  - How would we go about policing this? If it is a regulatory program, there would be sanctions if there were a runoff event.
  - This issue hasn't been fully resolved; we will listen to public comment.
- Need to make sure that development of the Phosphorus Standard stays in the recommendations.
- Local governmental authority.

- There is concern with finding a way to say stop spreading on frozen/snow covered ground in certain situations and locations for smaller operators. Since the state is not willing/able to move ahead in regulating this area of pollution statewide, we ought to at least recommend that local governments be enabled to take action with this problem. The State should not leave local governments in the lurch. Castelnuovo indicated that there is some authority of local governments to restrict spreading without requiring NMPs (this may need further discussion).
- At least in certain vulnerable parts of the state, we should recommend that there are some restrictions to applications on frozen/snow covered ground. A.) support authority of local governments to enact more stringent requirements to protect water quality. B) for trargeted areas in the state (Niagara escarpment) NMPs should be required to protect public health & the public trust.
- Ensure that timely responses are given to questions of local control: work closely with local governments to address questions of local authority with timely responses.

- How do we reach the folks who are not members of the progressive dairy organizations?
- Education or regulatory approaches:
  - Some members reiterated that they advocate for education first, and if that doesn't work, then move to regulation. However, there needs to be motivation for people to get education—through herd health, economics, etc. As part of this motivation, you could use some regulation as a last resort. Three options: Give local governments authority; use a statewide targeted approach; or education for all with no additional regulation at this point in time (perhaps higher level of implementation of existing regulations). Regulations tend to precede the science sometimes. Education in some areas works well for production, but education in other areas hasn't kept up with the producer; can't slow down production agriculture but need to speed up education to keep up with the fast growth of agriculture.
  - There is nothing in the document to address even what Dennis Frame has recognized the serious risks from spreading at certain times and circumstances. Need to address this. There are some situations where education alone is not going to be effective. You need to couple education with some sort of hammer, responsibility.
  - Ideally, we'd like everyone to have an NMP; but in the real world we don't have the delivery systems to make this a reality. Perhaps consider something short term, and 'NMP Light"…like some common sense recommendation.
  - If we list just the desirable behaviors in the recommendations, that will sidestep the issues of how to implement them…but eventually it does boil down to what means will be used to get to the ends.
- A winter spreading plan might be a good middle ground. If you want to haul manure in winter it must be done in accordance with a winter spreading plan done by a certified agronomist or conservation planner. This is not to the level of expense or investment of a 590 plan, but it would further minimize the risk. Suggests applying this to all operators. The decision of which field to spread on still remains with the farmer, but is done so with the knowledge that they'd be accountable to DNR & public if a runoff event occurs. Could either be done statewide or in certain targeted areas. It would not necessarily have to be submitted to someone. If there's a runoff problem they need to be able to pull the plan off the shelf & demonstrate that they did spread according to plan.
  - Raised the questions of who would oversee winter spreading plans? Should it be rolled up with the EMP, etc?
  - If we opt for this winter spreading plan, clarify that it does not prohibit winter spreading. Also clarify that it does not have to be submitted but does have to be kept on file and adhered to.
- The group identified a strong recommendation that the following be adopted by farmers: 1) a winter spreading plan, 2) a manure hauling plan, and 3) an emergency response plan. However, the group was split on how to achieve this: voluntary/educational, or mandatory.
- Some members also advocated for adding a bullet to the recommendations calling for adequate enforcement of existing regulations. Implement clear and certain enforcement, especially in areas with repeated violations. The current number of enforcement actions is very low. Identified bad actors should be enforced against with regularity. Perhaps instead of going to DOJ, levee fines directly that go to environmental restoration funds (though the legislature has not accepted that as a feasible option in the past).

6. Compensation for well contaminations.

Group had consensus on keeping this recommendation. To do this, NR 123 would have to be revised. The same funding mechanism may be able to apply as for other types of well contaminations; we would ask the legislature for more funds from the General Fund. The state can then recover costs from the responsible party, but this will go back into the General Fund and not into the well compensation program, and it is rarely pursued.

7. Limited enforcement program.

- On a conceptual level, the group agreed on this recommendation. Recognition that development of the details on both sides are critical to support of this concept. Group agreed to a regional pilot program.

- It would have to be assured that the environmental performance is worth the incentive provided—i.e., whatever the state is giving up in terms of enforcement is offset enough by high quality environmental results. Participants would have to meet a high standard to even qualify.
- Green Tier does provide a good framework to work within. Green Tier regulation does go into great detail on environmental, regulatory, and economic incentives. For Green Tier, an operator has to be in compliance with all regulations for a certain amount of time before even qualifying for the program; then must meet additional standards. Question on whether it provides incentives for both regulated and unregulated entities.
- Along with limited enforcement for exemplary operations, there should be clear & certain liability for operations that are not complying.

Public Meetings
See "Upcoming Meetings" above for locations and dates. Each meeting will begin with a 20-30 minute staff presentation. Task Force Member welcomes public. Can be a discussion rather than a formal hearing. Staff & members must stay the entire time.

Manure Management Task Force

Working Draft Report

Report
Manure Management Task

Contents

January 19, 2006

Rodney J. Nilsestuen, Secretary
Department of Agriculture, Trade and Consumer Protection
2811 Agriculture Drive
Madison, WI 53718

Scott E. Hassett, Secretary
Department of Natural Resources
State Natural Resources Building (GEF 2)
101 S Webster St
Madison, WI 53702

Dear Secretaries Nilsestuen and Hassett:

As co-chairs of the Manure Management Task Force, we are pleased to present you with our work product. Through a consensus-based process, the Task Force developed valuable guidance that will support actions to address the problem of manure runoff incidents. While agency action is an important vehicle to translate our recommendations into reality, we also envision a role for farmers, farm groups, local governments and other stakeholders in implementation.

In the 6-month period given to us, the Task Force conducted business in 7 meetings to address the issues raised in your charge. The Task Force considered critical aspects related to manure runoff incidents, including problem definition, innovative administrative response, evaluation of program capacity, and the role of the private industry. We specifically reviewed DNR and other data related to these incidents, and examined research from leading authorities. For one of its meetings, the Task Force held four public information sessions in three locations to collect public feedback on its work.

In developing our findings and recommendations, our Task Force served as a forum for members to share and consider different perspectives on issues that sometimes proved contentious. We engaged in respectful and knowledgeable dialogue that produced a set of practical and workable ideas. As a group, we reached consensus on the key actions described in our Executive Summary that offer immediate and longer-term solutions. Our extensive findings and recommendations cover a broad range of approaches and options, including research, data collection, monitoring, information and education, planning, emergency response and management, regulatory options, well protection, and future directions.

The Task Force's work reflects a shared concern about the needs of the farming community and protection of the environment, and seeks a fair balance between the two. Thank you for the opportunity to co-chair this important undertaking, and be part of this important and fruitful public policy discussion.

Sincerely,

Steve Born

Brian Rude.

Executive Summary: Key Draft Recommendations
Manure Management Task Force

In May of 2005, Scott Hassett, Secretary of the Department of Natural Resources (DNR), and Rod Nilsestuen, Secretary of the Department of Agriculture, Trade and Consumer Protection (DATCP), created a Manure Management Task Force to address issues arising from manure incidents occurring in Wisconsin during the winter of 2004-2005. Sixteen members were appointed to the Task Force, representing a broad spectrum of interests (See Appendix A). Following months of work, the Task Force has arrived at its final recommendations. This is a summary and distillation of the key draft recommendations prepared by the Manure Management Task Force. These recommendations are drawn from throughout the Draft Findings and Recommendations which follow this executive summary:

1. Increase use of the following practices to reduce risks related to manure runoff incidents:
    a. Winter spreading plans for farmers which would identify high risk fields that should not receive winter applications of manure.
    b. Manure hauling and training procedures to promote safe handling of manure.
    c. Emergency response plans to quickly contain and effectively clean up manure spills and overflows.

    The specific mechanisms for implementing these practices may include education, incentives, planning and regulation.

2. Increase <u>implementation</u> of nutrient management plans, with the recognition that phosphorous-based plans are the most effective means to reduce overall risks. Build support within the agricultural community, environmental, legislative interests and others to increase funding by $7-14 million annually for the implementation of nutrient management plans (required by state programs) for livestock operations. Funds should be targeted to areas/approaches that provide maximum benefit in terms of risk reduction and address locally-identified priorities for watersheds and groundwater.

3. Improve our knowledge about manure runoff events and their prevention by:
    a. Working through Wisconsin Agricultural Stewardship Initiative to develop and maintain a catalogue of research activity and needs, coordinate and help set priorities for research activity, and serve as a clearinghouse to coordinate the interpretation of research findings.
    b. Pursuing adaptive management approaches to inform and guide research, monitoring, management and policy decisions.
    c. Improving the work of the DNR and DATCP to deal with this issue, including enhanced data collection, tracking and reporting related to manure runoff events and improved cooperation between DATCP and DNR that makes better use of the agency's different expertise and protocols.

4. Emphasize and revitalize information and education efforts through targeted improvements and innovative approaches including:
    a. Developing a manure spreading advisory system that may take the form of a web-based risk assessment tool to warn farmers about specific weather-related hazards such as predicted rain events, and
    b. Developing a statewide notification program to alert farmers concerning high risk spreading conditions such as melt periods and dry weather. Different media including radio broadcasts (including daily market reports), websites, and email could be used for making notifications.

5. Strongly encourage counties to develop emergency response systems and farmers to prepare individual emergency response plans to better deal with acute manure runoff events.

6. Follow current regulatory paths for non-permitted livestock operations on state and local levels to address manure runoff incidents, and evaluate new regulation as follows:
    a. DATCP should consider developing either a statewide certification or licensing program for manure haulers that builds on the certification program operated by the professional manure haulers, giving careful consideration to the scope of requirements imposed, fees or other funding mechanisms for the program, and the class of persons to be regulated (e.g. contract haulers, medium and large livestock operators).
    b. DATCP should evaluate how farmers can participate in training and education efforts related to a statewide certification or licensing program for manure haulers.

7. Provide funds to compensate owners of wells contaminated by manure runoff events through revisions to DNR's well compensation program.

8. Develop a regional **pilot** program to test the effectiveness of limited enforcement protection and other incentives for farmers who meet standards for superior environmental performance. The regional pilot program will help evaluate:
    a. The potential conditions that would trigger protection, including criteria regarding protective management practices (beyond a Nutrient Management Plan and Emergency Response Plan) that a farmer must meet to be eligible for limited enforcement and related incentives.
    b. The nature of the potential protection and incentives that will be afforded farmers, including specifics associated with limited enforcement, reduced liability (which may involve a risk-pooling mechanism), and priority status in securing added technical and financial assistance.
    c. Ensure that this approach produces adequate public benefit to warrant the protection and incentives provided to farmers.

Task Force Charge

DATCP Secretary Nilsestuen and DNR Secretary Hassett convened the task force (a list of members is provided in Appendix A) to provide advice on reducing the risks of manure runoff incidents, while recognizing other state goals such as growth of the livestock industry. The Task Force was focused on acute risks to ground and surface water from land applied manure. As part of its charge, the Task Force was asked to consider the following:

- Long-term approaches to profit from manure including new technologies
- Long-term approaches to expand options for storing manure
- Standards for manure management planning, manure storage, and land application
- Methods to implement standards including education, licensing, and compliance
- Issues related to remediation of contaminated wells and compensation for manure incidents
- The state interest in growing the livestock industry while protecting our environment

Task Force Process

The Task Force conducted its business over the course of 7 monthly meetings beginning July 2005. In its first four meetings, the task force scheduled various presentations to better understand the scope and nature of issues related to its charge. DNR summarized manure spill incidents of the past year, while DATCP provided information about nutrient and manure management systems used by livestock operations. Presentations from the Discovery Farms, Pioneer Farms, and UW scientists to shed light on relevant research. Task force members shared their expertise to explain emerging technologies and conservation planning.

In its meetings, the task force developed a framework to identify and evaluate the key approaches and options. As part of this process, members reviewed existing policies, programs and activities in Wisconsin and other states. The task considered the effectiveness, economic impacts, and feasibility/acceptability of different approaches and options. In the end, the task force selected specific approaches and options through discussion and consensus.

With a tentative list of consensus ideas and recommendations, the task force held four public information meetings in Manitowoc, Eau Claire and Madison to solicit information and feedback on its preliminary work product. Appendix B contains a summary of comments received at the public information sessions.

The task force finalized the group's work product at its last meeting in January 2006. Members were provided an opportunity to sign off on the report before it was transmitted to the Secretary of the Department of Natural Resources and the Secretary of the Department of Agriculture, Trade and Consumer Protection.

Draft Findings and Recommendations
Manure Management Task Force

General Considerations

Land spreading is the most common method farmers use to dispose of their manure. This practice is effective in recycling manure, and is fundamental to sound farming. Proper land application requires balancing available land base with animal numbers. However, land application of manure, particularly in winter months, has resulted in acute runoff incidents involving fish kills and well contamination. The Wisconsin Department of Natural Resources documented 52 acute runoff events from July 1, 2004 through June 30, 2005 (see Appendix B).

Manure runoff from these events entered our lakes and rivers and killed fish. In other cases, land-applied manure found its way into private wells and contaminated drinking water. As a response to those runoff events, the Secretaries of the Department of Agriculture, Trade, and Consumer Protection (DATCP) and the Department of Natural Resources (DNR) convened the Manure Management Task Force to identify steps the state could take to help find solutions to these problems.

It is important to distinguish acute manure runoff incidents, that may impact water resources within hours, from the chronic delivery of nutrients from manure or sources that have water quality impacts over the course of many seasons. Proper manure handling practices can protect water quality but improperly timed or placed manure applications can result in both acute and chronic water quality impacts. Key factors that contribute to the rapid delivery of manure to surface and groundwater in acute events include spreading of liquid manure on frozen or snow covered-ground, manure applications on saturated ground, and spreading manure immediately prior to rain events or snow melts. Factors that lead to chronic delivery of nutrients from land-applied manure and other sources include the soil erosion rates, excessive manure applications, and phosphorous levels in the soil.

In the short-term, the Task Force agreed that producers should implement the following key practices that can reduce the risks related to manure runoff:

- winter spreading plans for farmers to identify high risk fields that should not receive winter applications of manure.
- manure hauling procedures and training to promote safe handling of manure.
- emergency response plans to quickly contain and effectively clean up manure spills and overflows.

The specific mechanisms for implementing these practices may include education, incentives, planning and regulation. While the Task Force has not achieved consensus regarding the how (i.e., the means for implementation of these practices), there is unanimity regarding the objectives (i.e., the ends sought, and that these procedures should be implemented). The Task Force, however, is divided on the efficacy and desirability of voluntary vs. regulatory means to achieve the desired results.

Nutrient management plans are the best available and most acceptable practice to address manure runoff issues including those related to winter spreading. Phosphorous-based nutrient management plans can be effective in reducing both chronic and acute risks. At this time, about 3% of Wisconsin's cropland is covered by a phosphorus-based nutrient management plan. DATCP rules require all farms to have a nutrient management plan by 2008 but, with some exceptions, nutrient management can not be expected of a producer without cost-sharing. Since funds for nutrient management are very limited, implementation is also limited. Additional funding, properly targeted, could reduce risks dramatically for farmers and for the environment. Assuming that 20% of Wisconsin's 9 million acres of farmland are the most critical for protection, then between $7-14 million will be needed for 5 to 10 years to cost-share needed nutrient management plans and supporting conservation plans.

In considering alternatives and options, it is critical to strike a balance that protects the environment and the public interest while allowing a climate favorable for our livestock industry to grow and prosper. This requires that we understand the effectiveness, economic impact and feasibility of different proposals. Engaging the agricultural community as well as the affected public is vital to identifying appropriate solutions, and making progress in addressing water quality concerns related to manure runoff events.

Recommendations

- DATCP and DNR should focus on actions that take advantage of the sustainable practice of land application of manure.
- The Task Force agrees unanimously that the state goal should be for all farmers to increase the use of winter spreading plans, proper manure hauling procedures, and emergency response plans to reduce risks related to acute runoff events. Education, incentives, planning or regulation are mechanisms that may be used to promote implementation of these basic practices. The selection of a particular mechanism should be based on its effectiveness, economic impact, feasibility and acceptability. The Task Force did not achieve consensus on the specific mechanism for implementation of these practices.
- The state must increase funding and implementation of phosphorous-based nutrient management plans. Such plans are recognized as the best available and most acceptable practice to reduce acute and chronic runoff risks related to manure applications.
- State agencies should engage the private and public sector in developing and implementing solutions. The agricultural community needs to become involved in identifying and taking ownership of solutions.

Research, Data Collection, and Monitoring

Ongoing research is essential to finding workable solutions to the problem of manure runoff events. Our leading researchers at the University of Wisconsin, Discovery Farms and Pioneer Farms are conducting experimental and on-farm research to better understand manure transport and other runoff from fields. We are not adequately documenting current research activities and research needs. There is a need for state

leadership to coordinate research activities. Our state research agenda could be more focused on key issues related to manure runoff incidents, and could integrate research on acute impacts with research on chronic impacts of nutrients.

Research can take various forms. It may validate specific practices that reduce runoff risks or minimize the impact of runoff events. It can look at new methods and technologies for managing and treating manure. By reducing water usage on farms, for instance, we can reduce the volume of manure that must be spread on land. There are opportunities to reduce and recover phosphorous. Some technologies such as solid separation offer promise. Others such as manure digestion provide related benefits by harnessing energy from manure while controlling odor and destroying pathogens. Social scientists can help clarify how we can most effectively communicate messages about manure management to farm audiences, and the value of different incentives in changing farmer behavior. Social science research can provide a better understanding of why producers implement practices or corrective actions, identify what barriers stand in the way of implementing new practices, and pinpoint what the most effective delivery methods are to communicate important messages to the agricultural community.

Research can be tightly targeted to address narrow issues or can take a more expansive view to address more complex considerations. Research can fill key gaps in our knowledge about manure runoff incidents including the role of tile lines in transporting manure. It can improve our understanding of funding mechanisms to pay for valuable practices such as nutrient management plans. Watershed research affords us the opportunity to understand manure runoff events on a larger scale, and identify management solutions that effectively address the full dimensions of the issue.

There are distinct benefits of focusing research and development on small scale technologies that are feasible for individual farms (e.g. filter-presses). This approach avoids the complexities of regional approaches such as transportation and pathogen concerns. There is room for regional solutions; however, it appears more productive to focus our research efforts on small, on-site technologies at this time. We need to evaluate and advance small-scale technologies with promise. There may be a place for manure storage bladders to handle any overflow from permanent storage structures.

It is important to improve the way state agencies collect, track and report data related to manure runoff events. With a more systematic approach to data collection, we would have better information to understand and evaluate runoff events. DATCP and DNR should more effectively collaborate to investigate these events, making use of their different expertise. Also there is a need to create a compilation mechanism such as an annual summary of the data.

Monitoring is related to data collection, and is performed by agencies and citizen volunteers. Monitoring can take different forms, and can be used to develop BMPs or determine their effectiveness, to monitor compliance during an event, and evaluate ambient water quality in lakes and rivers.

Recommendations

- DNR and DATCP should support statewide use of adaptive management, including identifying gaps in information, implementing research and monitoring programs, sharing results, and incorporating the results of research and monitoring into policy and management decisions, as the organizing methodology and philosophy to improve manure management in Wisconsin.
- DATCP and DNR should work through Wisconsin Agricultural Stewardship Initiative to develop and maintain a catalogue of research activity and needs, coordinate and help set priorities for research activity, and serve as a clearinghouse to coordinate the interpretation of research findings.
- DATCP and DNR should play a more active role in coordinating research to address key issues related to manure runoff incidents, provide leadership in identifying and supporting future research including participatory efforts, and provide direction in setting research priorities.
- DATCP and DNR must improve data collection, tracking and reporting of runoff events. The two agencies should evaluate the benefits of cooperation in accomplishing these actions.
- DATCP and DNR should explore the potential for using a common process for conducting investigations of manure runoff incidents, and consider using related protocols (e.g., DATCP protocols on investigating pesticide spills/incidents or DNR's Animal Waste Investigators Handbook) as models for investigation.
- Research activity should reflect the full range of needs, and include activities that more effectively translate research into policy, improve our understanding of what works to change farmer behavior, develop and test new technologies including solids separation and reduced water usage on farms, collect more information on transportation issues such as manure hauling costs, evaluate BMP effectiveness including pathogen control, understand how to improve the economic viability of on-farm manure digesters, identify opportunities for marketing compost, and shed light on the role of tile systems in transporting manure.
- Research and other approaches should provide maximum benefits by reducing acute runoff risks while effectively managing risks of chronic delivery of nutrients.
- The state should invest in research and other programs that focus on small-scale, on-farm approaches such as solid separation, storage bladders, and reduced on-farm water usage.
- Research efforts may assist in farm-level targeting of practices, using approaches similar to Wisconsin Buffer Initiative, to provide cost-effective approaches to managing nutrient runoff.
- DNR should develop a methodology for evaluating local and statewide economic costs resulting from manure runoff events, including public trust values of lost resource use for citizens and small business losses.
- Research efforts should continue to examine the environmental impacts of manure runoff events (including impacts from phosphorous and other nutrients, pathogens, ammonia, biochemical oxygen demand, and effects on groundwater) and should study the effectiveness of practices in protecting water quality.
- DATCP and DNR should recognize the importance of social data, and work with the agricultural community, university experts and others to improve the

collection of this information, including the benefits and barriers to practice adoption.

- DATCP and DNR should also work with researchers and the agricultural community to develop or use existing models to determine the net cost to farmers for developing and implementing nutrient management plans; monetary incentives should be targeted in accordance with those costs.
- DATCP and DNR should work with local governments, non-profit organizations and others to improve the quality of monitoring activities, including citizen monitoring during and prior to snow melts.

Planning

At different levels, planning is an effective tool to identify resource concerns and develop preventive and other strategies. On the farm, nutrient management plans are the most effective and well accepted tool to manage field application of manure. Under current law (ATCP 50 and NR 151, Wis. Admin. Code), all operations must have nutrient management plans by 2008 if cost-sharing has been offered. By making cost-share dollars available for nutrient management on livestock and poultry operations, we can increase the number of plans used by farmers, and reduce water quality risks related to land-applied manure. When combined with a conservation plan that identifies high risk fields for winter spreading, a nutrient management plan has enhanced power to reduce acute risks.

At the present available cost-share funding for nutrient management plans is woefully inadequate. Despite 15 years of state effort to support nutrient management planning, only about 10% of Wisconsin's 9 million acres of cropland have a nutrient management plan, and of this, only about 3% meets a phosphorus-based standard. This low adoption rate is primarily due to inadequate funding. Additional revenue sources should be identified, and channeled into effective programs. While the Task Force considered some specific options to generate revenue for this purpose, we determined it was not our role to make policy decisions about funding sources, but rather to stress the essentiality of funding these activities.

DATCP has targeted grant funds to cost-share nutrient management plans where there have been manure incidents and the farms are not already required to have plans.

There are more comprehensive approaches to farm planning that include whole farm plans and Environmental Management Systems (EMS). At this scale, these plans enable farmers to make better decisions because they can evaluate relevant information about available resources, alternative solutions, and potential impacts. An EMS is a systematic approach to identify, correct and monitor the environmental performance of a livestock enterprise. An EMS involves a continuous cycle of risk assessment, action planning, implementation, review and improvement to fully integrate environmental responsibility into the business of farming. External audits verify that farmers are doing what they identified in their EMS plans.

Farm planning can reduce a range of environmental risks, including those related to manure runoff incidents. When teamed with a nutrient management plan, an EMS offers

a powerful combination to prevent acute and chronic runoff events. State programs can stimulate the use of planning tools such as the EMS approach. For example, an EMS is a good fit with the *Green Tier* program and its emphasis on higher levels of environmental performance. Other incentives need to be considered. State programs might confer a degree of liability protection on a farmer who follows an EMS.

The state develops watershed and other plans to identify water quality concerns in particular areas. State plans that identify Total Maximum Daily Loads (TMDLs), which are required for impaired watersheds, can aid in efforts to target water quality protection.

Recommendations

- DATCP and DNR should work with the agricultural community, environmental interests and others to increase funding by $7-14 million annually for the implementation of nutrient management plans on livestock operations, building on the DATCP grant program and other models (e.g. the Wisconsin Buffer Initiative) to target financial incentives. This should be a high priority in the 2007 biennial state budget. Funds should be targeted to areas or using approaches that will provide maximum benefit and address locally-identified priorities for watersheds and groundwater
- DATCP and DNR should work with the private sector to support and expand the use of environmental management systems and other comprehensive planning tools.
- DNR can expand its support of EMSs through the *Green Tier* Program.
- DATCP and DNR should work with others to promote the planning and other mechanisms that reduce spreading of manure in high risk situations.
- DATCP and DNR should work with the private sector to develop incentives such as green labels to encourage EMSs.
- The agencies should consider targeting planning incentives to certain critical areas (e.g. an impaired watershed with TMDL concerns)

Information and Education

Combined with research and field testing, information and education (I & E) can serve a valuable role in transferring information about new practices and technologies. This approach has a long tradition of acceptance in the agricultural community. The effectiveness of farmer education efforts can be increased by maintaining long-term relationships with farmers. For example, sustained relationships are a key to the long-term success of nutrient management. Farm group involvement through mentoring and other efforts has the potential to create a sense of ownership in the solutions to this problem.

For proven systems and established practices, we need to look at outreach and education to disseminate useful information. For example, more farmers may consider composting if they knew more about the process, potential benefits, and costs. Education efforts also can shed light on new opportunities such as grazing, manure sharing, and insurance discounts. They might be used to disseminate the growing body of information about source reduction—reducing phosphorus in feed, separating liquids from solids, reducing water in the system. Budget cuts have diminished statewide capacity to carry out

outreach and education. Print materials and web-based delivery offer cost-effective options for communicating with farmers and other audiences, but web-based programs may reach a narrower audience and have other limitations.

Beyond the usual methods, we can look at innovations in education that take advantage of new technologies. A case in point is a spreading advisory tool developed in Oregon to allow farmers to identify and avoid high risk conditions for spreading manure.

Regular training is critical for those who apply manure. The training should be dynamic and current, including new components each year, rather than formal and repetitive. A statewide certification or licensing program has the advantage of ensuring full participation and consistency in training.

A well-rounded education effort includes outreach to the non-farm public. Public recognition programs such as River Friendly Farmer Awards acknowledges farmers for good performance and increase public awareness of farmers as good stewards.

Recommendations

- DATCP and DNR should reaffirm the importance of I & E efforts, and work with a coalition of interested parties to identify key activities such as nutrient management training and to secure adequate support for these activities particularly at the county level.
- DATCP and DNR should work with UWEX, county governments and others to pursue a manure spreading advisory system that may take the form of a web-based risk assessment tool to warn farmers about specific weather-related hazards such as predicted rain events. This tool should be developed and implemented with a full understanding of its limitations (e.g. farmers still need to use common sense).
- DATCP and DNR should work with UWEX and others to pursue a statewide notification program to alert farmers concerning high risk spreading conditions such as melt periods and dry weather. Different media including radio broadcasts (including daily market reports), websites, and email could be used for making notifications.
- I &E efforts should be enhanced by developing long-term relationships with farmers. New approaches to engage the agricultural community should be considered, such as a mentoring program to tap farmers who have already successfully implemented their nutrient management plans as a resource for other farmers.
- The state should invest in programs that promote proven systems and established practices such as composting and grazing that incorporate less risky, manure handling methods.
- I & E efforts should disseminate existing information more widely to promote manure brokering (exchange of manure), insurance discounts, grazing, and reduction of phosphorus in feed.
- I & E efforts should embrace innovative practices and technologies, including source reduction through reduction of phosphorus in feed, separation of liquids from manure solids, and reduction of water in the manure handling system.

- State agencies and UWEX should develop a formal training program related to manure hauling and management. This program could be part of a mandatory licensing or certification program for professional manure haulers. Medium and large livestock operations might be required to participate in training while participation by others would be voluntary.
- I &E efforts should be improved by making more effective use of print- and web-based materials. Improvements may include increasing the quantity and quality of material on manure management, developing informational materials on new research findings from the Discovery Farms and other sources, involving DATCP and DNR in the distribution of materials, using the web as appropriate but not relying on this mechanism, understanding the needs of the audience and using the most effective channels for communication, and considering new avenues to deliver information such as milk inspectors.
- The state should engage the agricultural community in education and training of farmers, and include information on the natural resource impacts of excess nutrients and manure.
- I & E efforts need to reach the non-farm public and should include farm visits particularly for agency staff, public recognition programs, and urban pollution prevention.

Monetary and non-monetary incentives

Incentives are an accepted tool to encourage farmers to adopt conservation practices and make positive management changes. Existing federal and state cost-share dollars are inadequate to meet the need for managing land application of manure. Of specific concern, cost-sharing is required for enforcing nutrient management and other agricultural performance standards on existing farms that are not required to obtain a WPDES permit. While incentives vary in their effectiveness, they merit serious consideration in developing state responses to manure runoff incidents. The Task Force considered traditional and innovative methods to fund incentive payments.

The significant benefits associated with nutrient management plans warrant serious consideration of new funding to provide more cost-sharing. However, there is merit in seriously exploring non-monetary incentives, particularly in light of shrinking budgets at all levels of government. The *Green Tier* program provides non-monetary incentives for DNR-permitted entities including livestock operations to adopt higher levels of environmental performance. This program may also serve a model for providing protection and incentives to other livestock operations.

The protection of limited enforcement is an incentive that merits further consideration. Properly designed, limited enforcement could serve as an inducement for many farmers to adopt key practices such as nutrient management. Both agriculture and environmental representatives indicated a willingness to pursue this concept provided key questions are resolved. Details that must be worked out include the specific conditions that would trigger this protection. Key questions include: What criteria regarding protective management practices must a farmer meet to be eligible for limited enforcement? What is the nature of the protection that will be afforded farmers? Should the level of the protection vary depending on the farmer's level of commitment? Are the protection and

incentives afforded farmers commensurate with the benefits conferred upon the public? Is there merit in providing protection through an industry risk pool that helps eligible farmers pay for runoff-related damages?

Recommendations

- DATCP and DNR should work with others to increase cost-share funding for nutrient management plans, as more specifically detailed in an earlier recommendation, because of the significant benefits associated with nutrient management plans.
- DATCP and DNR should actively work to establish a program of limited enforcement protection for farmers who agree to meet standards for superior environmental performance. The Task Force feels that a regional pilot program should be established to develop, test and evaluate implementation protocols for such a program.
- DATCP and DNR should work with the agricultural community, environmental interests and others to identify new funding source(s) from farmers, consumer groups and/or industry groups to pay for (a) remediation of contaminated wells, habitat and other impacts of manure runoff events, (b) implementation of preventive measures, and (c) related research.
- Insurance discounts and other incentive programs already in place should be more widely publicized through information and education efforts.
- State and federal grant programs should reward farmers with high levels of environmental performance by awarding them additional points when they apply for cost-share grant funds.

Emergency management

Careful planning and compliance with best management practices can minimize manure runoff risks; however, these actions do not entirely eliminate the risk. Farming is subject to variables such as weather that farmers cannot always anticipate and control. Planning and other emergency management measures are necessary to respond to unforeseen events.

These measures could take the form of emergency storage and disposal options, emergency planning, and expanded practices specifically designed to manage emergencies. Options that involve the transportation and regional storage of manure raise issues involving bio-security, hauling costs, and liability. Public wastewater treatment facilities may be a resource in an emergency, but they have wasteload restrictions that might preclude their acceptance of manure. Under current law, it is not an option to use lands set aside in the conservation reserve program for emergency manure applications. Farmers can use private arrangements with other farmers to transfer manure in emergencies. Private transactions would be facilitated by a list of farmers who were available to accept manure.

The state can develop a framework and guidance for emergency response planning that covers both farms and local governments. Counties can develop emergency response systems that include “911” hotlines and make advance arrangement to coordinate private

and public responders. Emergency response plans allow farmers to plan in advance how they will respond in the event of a runoff incident or other emergency. Emergency response plans identify who the farmer will contact and what procedures the farmer will follow. In these plans, farmers need to consider what aspects of an incident they can manage, and when they need to secure assistance to manage conditions beyond their skills and resources.

Research can yield new practices and technologies to limit the impact of runoff events. It is important that we continue to evaluate new options, identify successful tools, and share proven technologies with farmers and others. Polymers have shown potential as an emergency management tool, and are becoming more available commercially.

Recommendations

- DNR and DATCP should strongly encourage and support counties in developing emergency response systems as well as farmers in preparing individual emergency response plans. While education and incentives are important steps, the Task Force has not achieved consensus on the role of regulation in securing compliance among individual farmers.
- DATCP and DNR should engage the agricultural community and local governments in the task of developing and maintaining lists that identify private and public storage and treatment facilities that might accept manure in the event of an emergency.
- DATCP and DNR should engage the agricultural community and local governments in the tasks of identifying and expanding emergency storage capacity. This might include regional storage facilities and options to use private storage facilities.
- DNR and DATCP should work with the agricultural community and others to facilitate private arrangements among farmers to transfer manure in the event of emergencies.
- The state should support research and development of new management and technological options, identifying successful tools and sharing proven approaches with farmers and others.

Regulation

Under the current state nonpoint law, most farms are entitled to cost-sharing if they are required to comply with nutrient management and other agricultural performance standards. Livestock operations over 1,000 animal units are the exception; they are required to have nutrient management plans and meet other standards as a condition of their DNR permits issued under NR 243, Wis. Admin. Code. State and local governments are proposing new regulations that will specifically address manure runoff incidents. Proposed changes to NR 243 will mandate storage for manure and restrict manure spreading during winter months. The proposed livestock facility siting rules (ATCP 51, Wis. Admin. Code) will require farmers to implement nutrient management plans. Both ATCP 51 and NR 243 include a requirement for emergency response plans for operations covered by these rules.

Several counties are proposing ordinances that specifically regulate winter spreading of manure. Local officials are considering specific provisions that:

1. restrict winter spreading in high risk areas identified by farmers in conservation plans,
2. limit the volume of manure that can be applied on frozen and snow-covered ground,
3. prohibit manure application near wells and other sensitive areas,
4. require conservation practices to reduce runoff risks,
5. mandate recordkeeping of manure applied during the winter months, and
6. impose manure storage requirements.

Mandating manure storage for those livestock operations *not* permitted by DNR is problematic for the following reasons. If followed, this approach would require unrealistic levels of cost-share funds. While required storage may help farmers avoid spreading at undesirable times, mandatory storage can also cause other problems (e.g. spreading very large volumes in the spring). In addition, farmers with storage often run out of winter storage capacity as they add animals. In the end, more stored manure will increase the amount of manure that must be applied during short windows of time. This has implications for town roads that may not have capacity to handle this traffic. On the other hand, livestock producers with storage have more manure management options than those without storage. Ultimately the solution turns on the management of manure—some farmers have a safe land base for spreading, others do not. Farmers need to take responsibility because they must bear the cost if they cause environmental harm.

Current regulations such as NR 243 require recording keeping. Permit holders must have records related to production area structures and management including the emptying of storage structures, responses to manure storage overflows, and corrective actions including emergency responses. They must follow record keeping requirements for land application activities including application rates and weather conditions. Other record keeping requirements cover sampling and inspections. Beyond NR 243, record-keeping requirements may be necessary to implement basic practices such as winter spreading plans and emergency response plans

In addition to following current regulatory paths on state and local levels to address manure runoff incidents, the Task Force sees the need to consider new regulation in the following area. Currently, Wisconsin has a voluntary certification program for manure haulers operated by their professional organization. Other states impose requirements for licensing and certification of haulers. These licensing and certification programs are usually operated by state departments of agriculture, include training requirements, and may require participation of others in addition to those who haul for hire. The majority of Wisconsin haulers work for CAFOs (operations over 1000 animal units), which are regulated by DNR. Contract haulers handle approximately 1/3 of the manure in the state, but this percentage is declining somewhat as CAFOs elect to haul their own manure. Certified applicators have a set protocol to use for notification and investigation of runoff events (investigations done by Professional Nutrient Applicators Assoc. of WI); however those guidelines cannot be used for individual farmers because there is no overriding organization to conduct those investigations.

Recommendations

- DATCP and DNR should work with the agricultural community, environmental interests and others to support additional cost-sharing funds to implement existing state regulatory requirements for the implementation of nutrient management plans on livestock operations.
- DNR should be directed to finalize a water quality criteria phosphorous standard.
- State agencies should evaluate approaches to simplify and streamline regulatory processes, including fast-tracking review and permitting related to innovative technologies.
- DATCP should consider developing a statewide certification or licensing program for manure haulers that builds on the professional certification program, giving careful consideration to the scope of requirements imposed, fees or other funding mechanisms for the program, and the class of persons to be regulated (e.g. contract haulers, medium and large livestock operators).
- DATCP should evaluate how farmers can participate in training and education efforts related to a statewide certification or licensing program for manure haulers.
- DNR and DATCP should provide timely responses to proposed ordinances submitted by local governments for state review and approval.
- DNR and DATCP should encourage emergency risk assessments for all livestock operations as a proactive approach to reducing the risk of acute manure runoff events.

Protection of drinking water and groundwater

Land-applied manure has contaminated private drinking water wells. A consensus of Task Force members agreed that water supply well contamination from manure was an unacceptable outcome and that the issue should be addressed. In the past, victims of well contamination have not had adequate remedies for compensation. In terms of private lawsuits, they have been hampered by litigation costs and problems in proving causation. Wisconsin's Drinking & Groundwater program has a well reimbursement program that covers chemical contamination but not bacterial contamination (and thus excludes manure contamination). With advances in water testing, we can better pinpoint the cause of well contamination. Should well owners be afforded state compensation for manure contamination, the administering agency needs to consider the condition of the well and other factors. The interests of the farm community are advanced if victims of well contamination have recourse to a simple and effective way to address their problems. The DNR's well compensation program, including its funding mechanism, could accommodate claims from landowners with manure-contaminated wells. An alternative approach discussed was to hold the responsible party accountable to the affected well owner in those instance when a responsible party could be identified. In addition to the recommendations below, DNR also recommends the following to reduce groundwater and water supply risks from land-applied manure: a) identify minimum separation distance between wells, groundwater, karst features, bare rock, and other direct conduits to groundwater; b) limiting spreading on frozen ground in vulnerable areas, c) controlling application of manure within pre-identified source water protection. DNR is also interested in improving techniques and methodologies for identifying manure-contaminated wells and for identifying specific manure sources of such contamination.

Recommendations

- DNR should revise its well compensation program to provide funding for owners of wells contaminated by manure runoff events. This process must include a determination of funding necessary to pay potential claims as well as funding for abandonment of unused wells.
- DNR should work with DATCP, the agricultural community, and others to ensure adequate funding for a compensation program.
- Any new or revised program should resolve administrative issues including investigative protocols to verify claims, and compensation for substandard wells that become contaminated.

Future Advocacy and Accountability

The Manure Management Task Force Recommendations will lead to meaningful progress toward better management of our state's manure, with fewer runoff problems in the future only if they are implemented. As such, advocacy for the recommendations must occur in the near term to assure their adoption. Providing sufficient cost-share funding for nutrient management planning is perhaps the greatest advocacy need. Another key area for advocacy involves water supply well compensation. Furthermore, there should be an ongoing effort at monitoring and measuring the implementation and the relative effectiveness of the recommendations. In the future, both agencies should work together to assess any necessary future actions in accordance with the previously-discussed concepts of adaptive management.

Recommendations

- After the conclusion of the Task Force deliberations, Task Force members should remain actively engaged with legislators and others to advocate for the recommendations, particularly with the recommendations that would require additional funding.
- DATCP and DNR staff should develop criteria for measuring relative efficacy of adopted Task Force recommendations and provide annual reports to the Secretaries of both agencies, as well as the public, for at least the next three years.

Appendix A
Task Force Members

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Wisconsin Farmers Union

Rebecca Power
River Alliance of Wisconsin

Jay Richardson
Professional Dairy Producers of Wisconsin

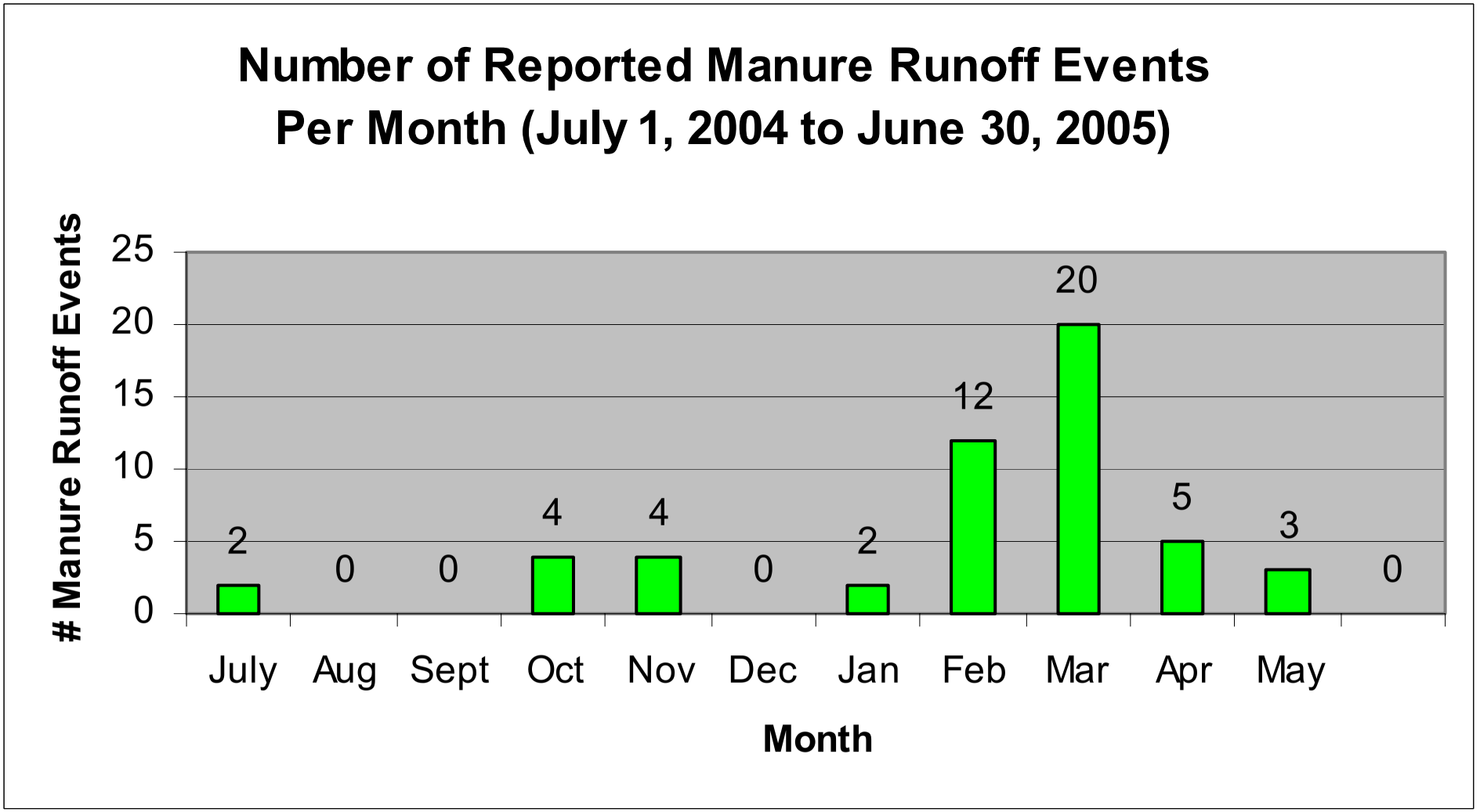
Robert Selk
Trout Unlimited

Monte Wick
Farmers Cooperative Supply and Shipping

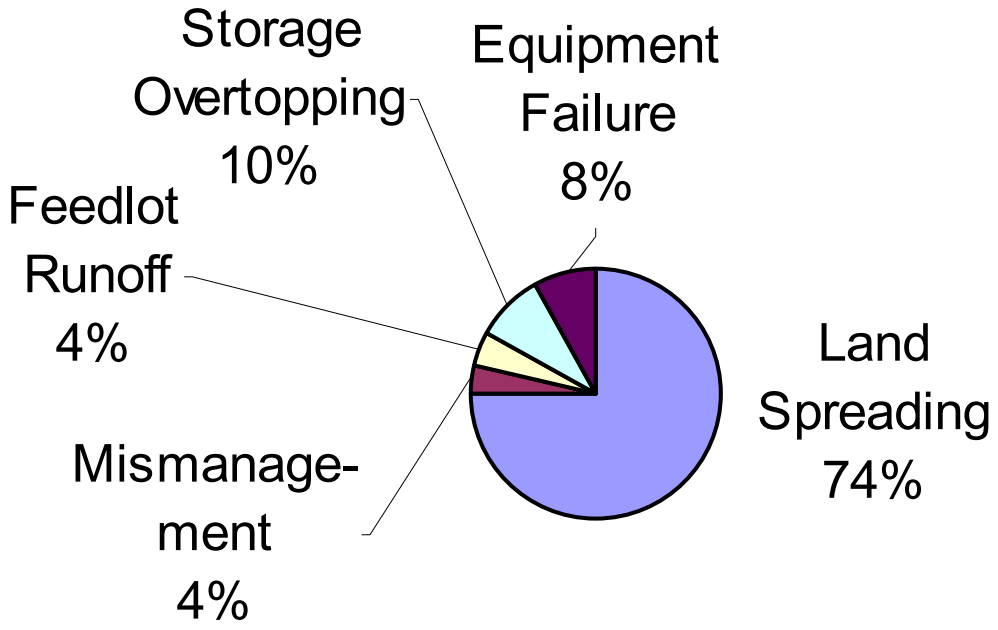
Appendix B

2005 Manure Runoff Events
DNR records

Distribution of 52 runoff events

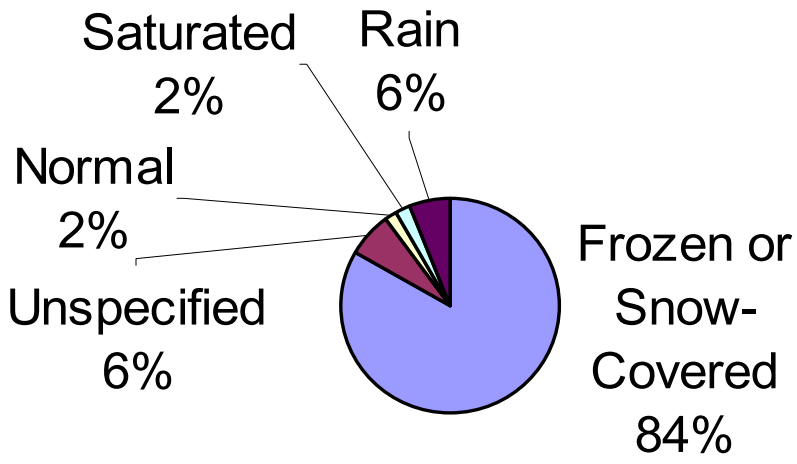


Causes of Manure Runoff Events

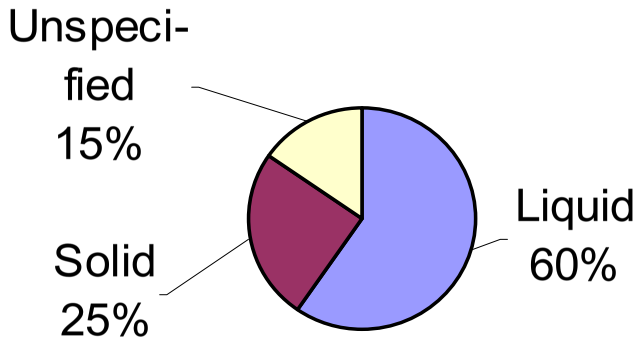


Manure types and application conditions

Soil Conditions during Landspreading



Liquid vs. Solid Applications Resulting in Manure Runoff

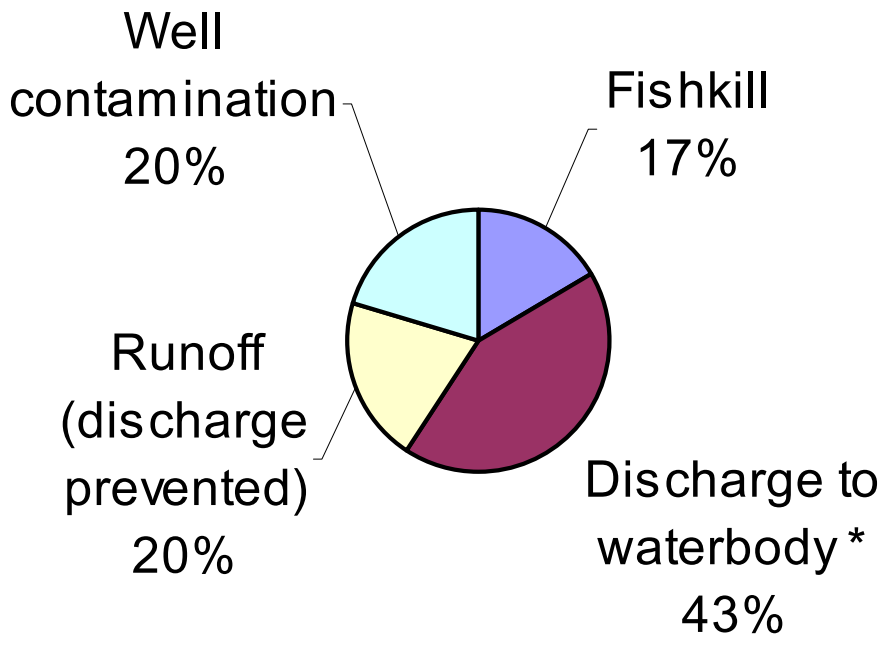


Landspreading Done by:

7 Contract Hauler
27 Operator
6 Unspecified

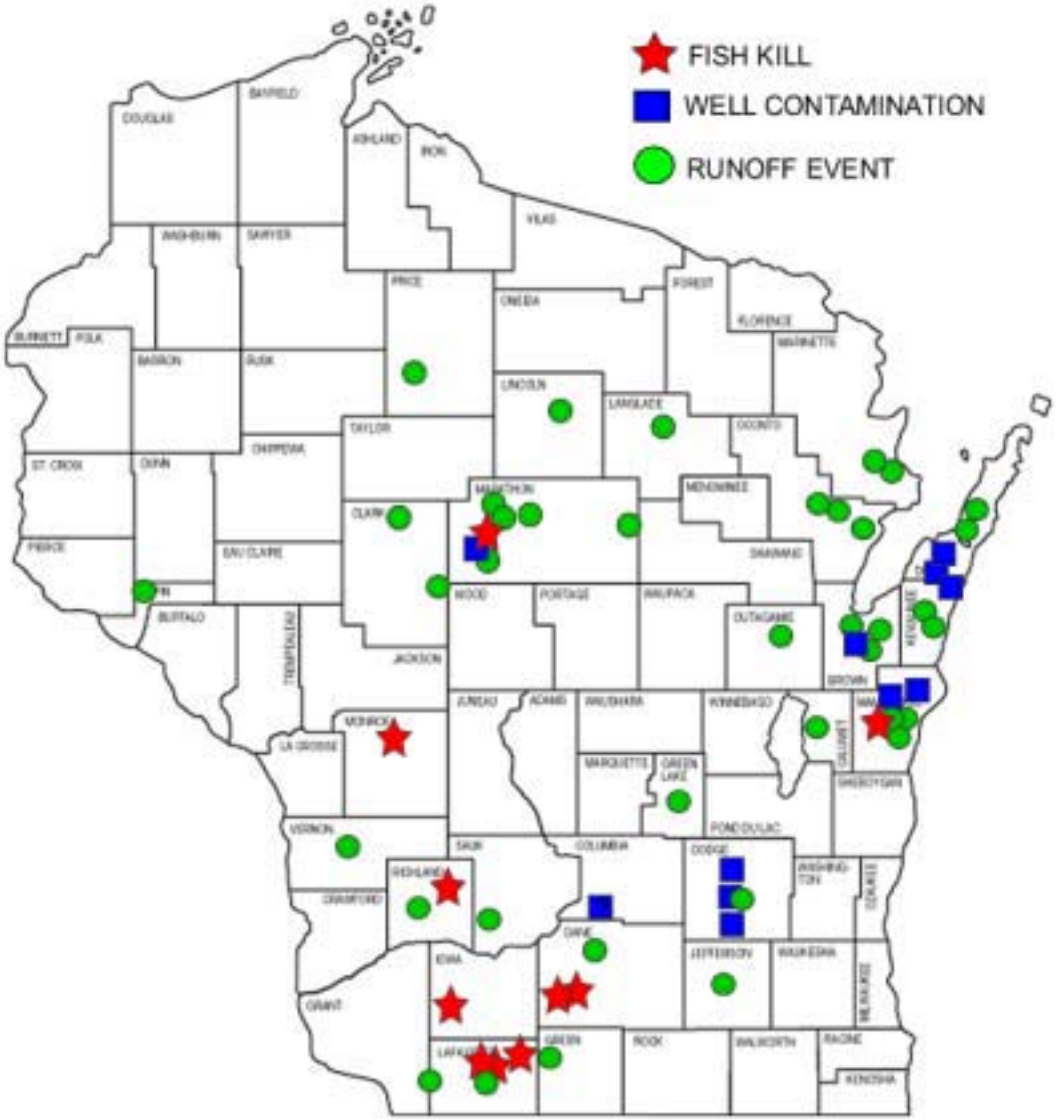
Impacts of manure runoff events

Some events resulted in multiple impacts



Manure-Related Fishkills, Well Contaminations and Runoff Events

March 1, 2004 - June 1, 2005



Appendix C
Public Listening Sessions
Manure Management Task Force (MMTF)
Proposed Findings and Recommendations
January, 2006

On December 15, 2005, the Manure Management Task Force convened three simultaneous Listening Sessions in Madison, Manitowoc and Eau Claire to seek the public's input on the nine recommendations in the draft Manure Management Task Force Report.

The primary issue of contention to emerge in these sessions was: *Should the recommendations be implemented by mandatory means or by voluntary means?*

Approximately **105** people attended the informational sessions, about **34** people testified and **14** people submitted written comments. An additional **33** written comments were submitted separately from the sessions before the December 21, 2005 deadline.

Table 1 provides a breakdown of the attendance, testimony and written comments.

Table 1: Session Attendance, Testimony and Written Comments

Location	**Attended**	**Testified (percent)**	**Written Comments (percent)**
Madison – afternoon	25	9 (36%)	1 (4%)
Madison – afternoon and evening	8	4 (50%)	0
Eau Claire – afternoon	15	6 (35%)	3 (2%)
Manitowoc – evening	57	15 (26%)	11(19%)
TOTALS	105	34 (32%)	14 (13%)

Other highlights of both written and oral comments are:

1. Fish kills and well contaminations are very serious concerns to most all attendees at the Listening Sessions. Most agreed that water quality impacts associated with land application of manure should be addressed.
2. The recommendations in the draft Task Force Report were generally supported in concept by most attendees at the Listening Sessions. The highest number of comments related to licensing or certifying manure haulers, revising well compensation and improving agency data collection.
3. Like the Task Force itself, there were two divergent opinions expressed in the testimony at the Listening Sessions about how to best implement the recommendations: mandatory or voluntary? As the attached *Summary of Comments* indicates, testimony at the Listening Sessions appears to be evenly split between these two positions: 16 speakers tending towards

mandatory solutions, 14 tending towards more voluntary solutions with 6 committing to neither.

a. Those on the “mandatory” side predominantly included private citizens as well as public advocacy groups. They supported increased oversight of operations and also supported certain mandatory actions on the part of producers. The most frequently referenced action was a ban on winter spreading. Other suggestions included requiring offenders rather than the public to pay for well compensation and to get away from the idea that cost-sharing must be provided to producers before remedial actions can be required.
b. The “voluntary” side was primarily comprised of livestock producers and their associated industries. The most frequent comment from producers was that they could not afford burdensome regulations. Moreover, they asserted that imposition of additional regulations would severely impede the maintenance and growth of the livestock industry in the state of Wisconsin resulting in negative economic consequences. Others noted the well-known agronomic benefits of landspread manure. Another comment was that incentives and education were superior to mandatory requirements. At least one producer noted that the industry has made strides forward in protecting the environment through its own creativity. Regulation would stifle that creativity.

Hearing	Name	Affiliation	Mandatory	Voluntary	Uncommitted	Significant Comment
Madison	Meyer	Wi Wildlife Fed	x			"The draft final report does not do the job."
Madison	Heffernan	unknown	x			"Please no winter spreading; hold till spring."
Madison	Munson	ukn	x			""Require written emergency plan at least for all WPDES"
Madison	Ends	small scale farmer	x			"Require no winter application and enforce…"
Madison	Caneff	River Alliance	x			"It may be time to ask farmers to pay."
Manitowoc	Starzewski	Former Farmer	x			"The state may need to phase in requirements that specify storage…and may need to limit size of farms."
Manitowoc	Pozorski	Wis Assoc. of Lakes.	x			"Liquid manure is the biggest threat in Manitowoc County waters."
Manitowoc	Tooley	Centerville CARES	x			"...need to focus on bad actors so severe consequences occur; without enforcement or regulation, it is profitable to keep polluting."
Manitowoc	Wallander	Kewaunee County LCD	x			"Winter manure spreading prohibition areas are needed in shallow bedrock areas."
Manitowoc	Coulthurst	Door Co. SWCD	x			"The solution is to stop winter spreading."
Manitowoc	Treml, Scott	Landowner w/ contaminated well	x			"Ban liquid manure spreading in winter."
Manitowoc	Treml, Judy	Landowner w/ contaminated well	x			"Well compensation should come from the offender."
Manitowoc	Zelinski	ukn	x			"Ban winter spreading or require winter spreading plans."
Manitowoc	Steinke	Landowner w/ contaminated well	x			"…were forced to take out a home equity loan to cover the $14,000 cost of a new well."
Eau Claire	Erickson	E.C. Co. LCC	x			"…pollution comes from everyone, not just farmers."
Eau Claire	Morrow	Dairy Farmer	x			"Maine and Vermont have the right idea: ban winter spreading."
Madison	Ramsden	Dairy Farmer		x		"If the ag economy is destroyed, you won't have to worry about manure"
Madison	Pulfus	Poultry Farmer		x		"Ask farmers; don't mandate."
Madison	Haag	Ag Credit		x		"Consider cost."

Hearing	Name	Affiliation	Mandatory	Voluntary	Uncommitted	Significant Comment
Madison	Weller	Pork Producers		x		"Education and incentives should be the focus; not further unfunded mandates
Madison	Havens	Wi Ag Business Council		x		"The public should have to help pay for this."
Madison	Meffert	Farmer		x		"Don't pass more costs on to us."
Madison	Birshbach	Crop Consultant		x		"I suggest that we put an extra charge on trout stamps or duck stamp to keep water clean."
Manitowoc	Kappelman	Farmer		x		"To maintain a dairy industry in Wisconsin, farmers and nonfarmers are going to have to respect each others' rights.
Manitowoc	Geiser	Farmer		x		"We need to regulate as a last resort."
Manitowoc	Buelow	Holsum Dairy		x		"We need to look at the positive side of the use of manure-it provides a natural source of fertilizer…"
Manitowoc	Nysse	Wi. Cattlemen's Assoc./self		x		"Small farms will be the first to go."
Manitowoc	Myers	Veternarian		x		""Taking an educational approach is more productive than… regulators that shut farms down."
Eau Claire	Buttke	Farmer		x		"Banning winter spreading is impractical."
Eau Claire	Meister	Farmer		x		"Positive change occcurring, but won't happen overnight. Public must be patient."
Madison	Bach	Wi Assoc of Lakes			x	"Funding should be distributed using environmental markets."
Manitowoc	Avery	Landowner w/ contaminated well			x	"…need to consider costs to homeowners as well as costs to farmers…"
Manitowoc	Ward	Manitowoc County LCD			x	"Better data tracking is useful to determine what problems exist and ways to correct them."
Eau Claire	Fantle	E.C. Co. Board			x	"State revenue caps have impeded E. C. Co. from funding nutrient mgt. plans."
Eau Claire	Popple	DNR			x	"The industry could be hurt if bans based on calendar dates are adopted."
Eau Claire	Leslie	Energy consultant			x	"The state should invest more in biogas digesters."